WHAT IS CLAIMED IS:

1. A method for adjusting dot-gain for a halftone binary bitmap file comprising the steps of:

(a) inputting a halftone binary bitmap file comprising binary pixels to a digital filter;

(b) filtering the binary pixels with the digital filter generating a weighted sum of the binary pixels producing a first set of multilevel pixels;

(c) filtering the binary pixels with a second digital filter producing a second set of multilevel pixels;

(d) sampling the second set of multilevel pixels at a preset sample rate identifying a set of sampled multilevel pixels;

(e) inputting the set of sampled multilevel pixels to a lookup table to create an output that is a threshold level for the set of sampled multilevel pixels;

(f) using the first multilevel pixels and comparing to the threshold level for the set of sampled multilevel pixels and generating a binary pixel output; and

(g) collecting the binary output and forming an adjusted halftone binary bitmap.

2. The method of claim 1, wherein the first digital filter is a blur filter, an edge enhancement filter, an averager filter, a high pass filter, a low pass filter, or a band pass filter.

3. The method of claim 1, wherein the first digital filter is a horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter.

4. The method of claim 1, wherein the second digital filter is a horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter.

5. The method of claim 1, wherein the second digital filter is an averager filter.

6. The method of claim 1, wherein the second digital filter is a low pass filter.

7. The method of claim 1, wherein the halftone binary bitmap file is generated by a raster image processor.

8. The method of claim 1, wherein the halftone binary bitmap file is generated from a high resolution scan of a halftone film.

9. The method of claim 1, wherein the halftone binary bitmap file has a resolution of between 600 dpi and 6000 dpi.

10. The method of claim 9, wherein the halftone binary bitmap file has a resolution of between 1800 dpi and 3000 dpi.

11. The method of claim 1, wherein the lookup table is determined by the color separation that the halftone binary bitmap file represents.

12. The method of claim 1, further comprising the step of processing the halftone binary bitmap file at a specific screen ruling and a specific screen angle.

13. The method of claim 1, wherein the lookup table is determined by a halftone binary bitmap file screen ruling.

14. The method of claim 1, wherein the lookup table is determined by a halftone binary bitmap file screen angle.

15. The method of claim 1, wherein the preset sample rate is determined by a screen ruling of the halftone binary bitmap file.

16. The method of claim 1, wherein the preset sample rate is determined by a screen angle of the halftone binary bitmap file.

17. The method of claim 1, wherein the preset sample rate is determined by a screen angle and a screen ruling of the halftone binary bitmap file.

18. The method of claim 1, wherein the preset sample rate is determined using a halftone bitmap screen ruling and a halftone bitmap screen angle.

19. A method for adjusting dot-gain for a halftone binary print comprising the steps of:

(a) inputting a halftone binary bitmap file comprising binary pixels to a digital filter;

(b) filtering the binary pixels with the digital filter generating a weighted sum of the binary pixels producing a first multilevel pixel;

(c) filtering the binary pixels with a second digital filter producing a second multilevel pixel;

(d) sampling a plurality of second multilevel pixels at a preset sample rate identifying sampled multilevel pixels;

(e) inputting the sampled multilevel pixels to a lookup table to create an output that is a threshold level for the sampled multilevel pixels;

(f) using a plurality of first multilevel pixels and comparing the plurality of first multilevel pixels to the threshold level for the sampled multilevel pixels and generating a binary pixel output;

(g) collecting the binary pixel output and forming an adjusted halftone binary bitmap; and

(h) printing the adjusted halftone binary bitmap.

20. The method of claim 19, wherein the first digital filter is a blur filter, an edge enhancement filter, an averager filter, a high pass filter, a low pass filter, or a band pass filter.

21. The method of claim 19, wherein the first digital filter is horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter.

22. The method of claim 19, wherein the second digital filter is a horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter.

23. The method of claim 19, wherein the second digital filter is an averager filter.

24. The method of claim 19, wherein the second digital filter is a low pass filter.

25. The method of claim 19, wherein the halftone binary bitmap file is generated by a raster image processor.

26. The method of claim 19, wherein the halftone binary bitmap file is generated from a high resolution scan of a halftone film.

27. The method of claim 19, wherein the halftone binary bitmap file has a resolution of between 600 dpi and 6000 dpi.

28. The method of claim 27, wherein the halftone binary bitmap file has a resolution of between 1800 dpi and 3000 dpi.

29. The method of claim 19, wherein the lookup table is determined by the color separation that the halftone binary bitmap file represents.

30. The method of claim 19, further comprising the step of processing the halftone binary bitmap file at a specific screen ruling and a specific screen angle.

31. The method of claim 19, wherein the lookup table is determined by a halftone binary bitmap file screen ruling.

32. The method of claim 19, wherein the lookup table is determined by a halftone binary bitmap file screen angle.

33. The method of claim 19, wherein the preset sample rate is determined by a screen ruling of the halftone binary bitmap file.

34. The method of claim 19, wherein the preset sample rate is determined by a screen angle of the halftone binary bitmap file.

35. The method of claim 19, wherein the preset sample rate is determined by a screen angle and a screen ruling of the halftone binary bitmap file.

36. The method of claim 19, wherein the preset sample rate is determined by a halftone bitmap file screen ruling and a halftone binary bitmap file screen angle.

37. A method for adjusting dot-gain for a printing plate comprising the steps of:

(a) inputting a halftone binary bitmap file comprising binary pixels to a digital filter;

(b) filtering the binary pixels with the digital filter generating a weighted sum of the binary pixels producing a multilevel pixel;

(c) filtering the binary pixels with a second digital filter producing a second multilevel pixel;

(d) sampling a plurality of second multilevel pixels at a preset sample rate identifying sampled multilevel pixels;

(e) inputting the sampled multilevel pixels to a lookup table to create an output that is a threshold level for the sampled multilevel pixels;

(f) using a plurality of first multilevel pixels and comparing the plurality of first multilevel pixels to the threshold level for the sampled multilevel pixels and generating a binary pixel output;

(g) collecting the binary output and forming an adjusted halftone binary bitmap; and

(h) exposing a printing plate to the adjusted halftone binary bitmap.

38. The method of claim 37, wherein the first digital filter is a blur filter, an edge enhancement filter, an averager filter, a high pass filter, a low pass filter, or a band pass filter.

39. The method of claim 37, wherein the first digital filter is a horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter.

40. The method of claim 37, wherein the second digital filter is a horizontal filter, a vertical filter or a combination of at least one vertical filter and at least one horizontal filter.

41. The method of claim 37, wherein the second digital filter is an averager filter.

42. The method of claim 37, wherein the second digital filter is a low pass filter.

43. The method of claim 37, wherein the halftone binary bitmap file is generated by a raster image processor.

44. The method of claim 37, wherein the halftone binary bitmap file is generated from a high resolution scan of a halftone film.

45. The method of claim 37, wherein the halftone binary bitmap file has a resolution of between 600 dpi and 6000 dpi.

46. The method of claim 45, wherein the halftone binary bitmap file has a resolution of between 1800 dpi and 3000 dpi.

47. The method of claim 37, wherein the lookup table is determined by the color separation that the halftone binary bitmap file represents.

48. The method of claim 37, further comprising the step of processing the halftone binary bitmap file at a specific screen ruling and a specific screen angle.

49. The method of claim 37, wherein the lookup table is determined by a halftone binary bitmap file screen ruling.

50. The method of claim 37, wherein the lookup table is determined by a halftone binary bitmap file screen angle.

51. The method of claim 37, wherein the preset sample rate is determined by a screen ruling of the halftone binary bitmap file.

52. The method of claim 37, wherein the preset sample rate is determined by a screen angle of the halftone binary bitmap file.

53. The method of claim 37, wherein the preset sample rate is determined by a screen angle and a screen ruling of the halftone binary bitmap file.

54. The method of claim 37, wherein the preset sample rate is determined by a halftone bitmap file screen ruling and a halftone binary bitmap file screen angle.